

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/721,959
Attorney Docket No. Q61990

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A slot assignment unit for use in a time division multiple access (1 DMA) transmitter, comprising:
- a first table;
- a second table;
- a control data generation unit for receiving assignment terms for a plurality of time slots and slot data from an external source, producing a set of assignment control data according to the assignment terms and the slot data and storing the set of assignment control data into an entry of said first table in response to a command signal applied thereto; and
- a sequence controller for analyzing a plurality of said sets of assignment control data, producing a plurality of address pointers, storing said plurality of address pointers in said second table in such a sequence that the address pointers can be sequentially read out in a desired transmission sequence, and supplying said command signal to said control data generation unit in response to each of said address pointers.
2. (original): The slot assignment unit of claim 1, wherein said TDMA transmitter includes a data memory for storing a plurality of transmit data, and wherein said set of assignment control data stored in said first table includes an address of a communication

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/721,959
Attorney Docket No. Q61990

terminal, a starting address point of each transmit data in said data memory, and a count number of slots assigned to said entry.

3. (original): A time division multiple access (TDMA) transmitter comprising:

- a first table;
- a second table;
- a control data generation unit for receiving assignment terms for a plurality of time slots and slot data from an external source, producing a set of assignment control data according to the assignment terms and the slot data and storing the set of assignment control data into an entry of said first table in response to a command signal applied thereto; and
- a sequence controller for analyzing a plurality of said sets of assignment control data, producing a plurality of address pointers, storing said plurality of address pointers in said second table in such a sequence that the address pointers can be sequentially read out from a starting address of the second table, and supplying said command signal to said control data generation unit in response to each of said address pointers;
- a data memory for storing a plurality of transmit data; and
- a framing unit for sequentially reading address pointers from said starting address of said second table and reading assignment control data from entries of said first table which are specified by the read address pointers and formulating a frame with the read assignment control data and said plurality of transmit data from said data memory.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/721,959
Attorney Docket No. Q61990

4. (original): The TDMA transmitter of claim 3, wherein said set of assignment control data stored in said first table includes and address of an assigned communication terminal, a starting address point of each transmit data in said data memory, and a count number of assigned slots.

5. (original): A slot assignment method for a time division multiple access (TDMA) transmitter, comprising the steps of:

- a) receiving assignment terms for a plurality of time slots and slot data;
- b) producing a set of assignment control data according to the assignment terms and the slot data;
- c) repeating steps (a) and (b) to produce a plurality of sets of assignment control data;
- d) analyzing said plurality of sets of assignment control data;
- e) storing one of said sets of assignment control data into an entry of a first table;
- f) storing an address pointer in a second table corresponding to said entry of said first table; and
- g) repeating steps (d) to (f) until all of said assignment control data are stored in the first table.

6. (original): The slot assignment method of claim 5, further comprising the steps of:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/721,959
Attorney Docket No. Q61990

sequentially reading address pointers from a starting address of said second table and reading said plurality of sets of assignment control data from said first table in accordance with the read address pointers; and
formulating a frame with the assignment control data read from the first table.

7. (new): The slot assignment unit of claim 1, wherein the assignment terms include one or more of:

A1 priority levels classified according to at least one of communication services and urgency,
types of packets, and
an uplink-to-downlink ratio within a frame.

8. (new): The TDMA transmitter of claim 3, wherein the assignment terms include one or more of:

priority levels classified according to at least one of communication services and urgency,
types of packets, and
an uplink-to-downlink ratio within the frame.

9. (new): The slot assignment method of claim 5, wherein the assignment terms include one or more of:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/721,959
Attorney Docket No. Q61990

AJ priority levels classified according to at least one of communication services and
urgency,
types of packets, and
an uplink-to-downlink ratio within a frame.